

# First-of-its-kind national survey reveals public perceptions about nuclear weapons

**Public takes middle-ground view in assessing value, hazards**

By Ken Frazier

*Lab News Managing Editor*

Americans expect the threat of nuclear proliferation and nuclear terrorism in the post-Cold War era to increase. They favor continuing negotiated reductions in nuclear weapons, but they don't want or expect the US nuclear arsenal to disappear. They want less funding for developing new nuclear weapons and for maintaining existing ones, but they support increased funding for nuclear weapon safety and training and for the prevention of nuclear proliferation and terrorism.

The majority of the general public believes that nuclear weapons have played an impor-

tant role in preserving the American way of life during the past four decades. They distinguish both risks and benefits of having nuclear weapons, and tend to take a middle-ground between the views of scientific proponents and scientific critics of nuclear weapons.

Finally, the majority consider nuclear weapons to be a persistent feature of the post-Cold War security environment.

These are among the major findings of the most comprehensive survey of perceptions about nuclear weapons since the end of the Cold War. The national survey, sponsored by Sandia and carried out by the Institute for Public Policy at the University of New Mexico, provides important insights into attitudes of the US public.

The survey also provides intriguing comparisons among views of the general public, scientists at the national labs, and scientist members of a nuclear watchdog group.

It is the only study of its type conducted since the dawn of nuclear weapons at the end of World War II, the UNM researchers say.

## Post-Cold War perceptions

The study, National Security Survey: Perceptions and Policy Concerns 1993-1994, surveyed random samples of three distinct groups:

- A nationwide telephone survey of 1,301 randomly selected households was conducted  
*(Continued on page 4)*

# Sandia Sandia National Laboratories

## LabNews

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## Sandians get chance to comment on new draft Strategic Plan

By Howard Kercheval

*Lab News Staff*

## Getting connected is 'job one' of reengineering effort

**New information organization will usher Labs into 21st century**

Twenty years ago, if you wanted to communicate with someone at Sandia, you made a phone call, you mailed a memo, or you walked across the Tech Area.

Information moved very slowly.

Today by pressing "enter," you can zap information at light speed to colleagues in the next office or the next hemisphere. Local area networks, E-mail, voicemail, faxes, data-transmitting phones, video-conferencing, the Internet, fiber optics, satellites, super-fast PCs, and myriad varieties of software are all accessible at an arm's length.

But despite this grand proliferation of information technology, somehow Sandians still don't communicate very effectively. You've heard the standard complaints: my PC's not compatible, my software's not compatible, I can't link up with so-and-so because he's on a



GETTING WIRED — Jim Cates (foreground) and Paul Freeman (both of Integrated Technologies Corp.) use portable microscopes to look at and polish the ends of super-fine fiber optic lines they are "terminating" (fastening to connectors) in the Bldg. 836 Intermediate Distribution Room (IDR). The IDR is the new hub of voice and data communications for Bldg. 836. Seventy-five miles of fiber optic line and 113 miles of copper wire have recently been installed in 836, the first Sandia/New Mexico building to "get connected."

different network, etc., etc.

As a first step of the Labs' new reengineering effort (*Lab News*, April 29), Mike Eaton (former director of Data Systems Engineering Center 9400) was named Sandia's new Chief Information Officer (CIO) 13100. Part of his job will be to build an information infrastructure at

*(Continued on page 5)*

More than seven months worth of work heads for the "critics" today with the submission to center offices of the Labs' draft Strategic Plan, and an invitation to all Sandians to read it and offer suggestions for possible inclusion in its final version.

"We're inviting everybody to give us feedback," says Joel Weiss, Director of Strategic and Operational Planning Center 4500, who led the plan-writing team. "We're shooting for about a month's turnaround time to get people's comments back, then incorporate them into a final published version of the plan."

He says copies are being sent to all center offices where employees interested in reading the plan can borrow a copy. The draft plan also is being sent, with a cover letter from Labs President Al Narath, to selected customers, many of them in DOE and DoD.

Revision of the 1990 strategic plan was being planned before DOE signed a contract with Martin Marietta last fall to manage and operate Sandia. Joel says the company supported that move and the planning process has been under way since early November.

Since then, he says, there have been 14 days of "sometimes very draining all-day sessions" during which the 14 members of the Sandia Quality Leadership Council (SQLC) plus him and Public Relations and Communications Center (12600) Director Jerry Langheim "hashed out a lot of the issues."

Even though only four years separate the  
*(Continued on page 7)*

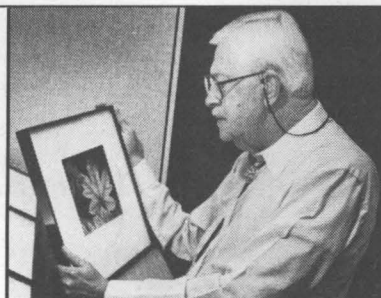
*"It's more important than ever to have state-of-the-art business processes."*

Sandia, Kaiser Permanente creating health care model

3

Answers to your questions about changes in pension plan

8



Sandia's Ansel Adams photos now on display in Bldg. 802

9

Five highest employee honors at Recognition Night

9



# This & That

Thanks, Mr. Marietta - I mentioned in the last issue a few ways that our management contractor, Martin Marietta, supports education and educational groups in our communities. The Regional Science and Engineering Fair held in Albuquerque each spring is one effort that receives support in several ways. For one, Martin Marietta gives cash awards to the winners, says Sandia's Community Relations Manager Karen Shane (12640). And the kids appreciate it; Karen gets quite a few thank-you notes from them. Here's part of one: "I would like to thank you and Mr. Marietta for the check you sent me. . ." And from another dedicated, but not terribly modest, scientist in the making: "I really do thank you for it [the money]. I spent a lot of time on my project, but hey, that is dedication."

\*\*\*

Thanks, column fans - Every so often, someone calls or sends a note to say they enjoy this column, but frequently they say something like this: "I always read your column - right after I read the classified ads." I guess being second to the ads is no dishonor, but I heard something of a compliment with a new twist recently. "I enjoy your column - even the true parts!" That's nice to know, and I can report that those parts don't take very long to write.

\*\*\*

This is true - I think my director's feelings may be bruised, because he (Jerry Langheim, 12600) commented several weeks ago that I haven't zinged him in this column for a while. (Being the "zingee" is something of a tradition, you see.) I think he understood, though, when I explained that I try to limit those comments as Sandia's performance review period draws near. By the way, have you noticed how tasteful his suits and ties are? If you see him, you might mention that I commented about them.

\*\*\*

I hope we don't take this to extremes - From *Focus*, the newspaper for Kirtland AFB, this answer to a question about whether Air Force personnel can still hold car washes on base: "Fund-raising car washes can still be held on base, although it's not as simple a matter as it used to be. Due to environmental concerns, everyone must now file a Notice of Intent to discharge water. . ."

\*\*\*

Cold, hard VR? - The lead story in our first issue last month featured a fascinating virtual reality "shell" invented by Creve Maples (1415). This virtual reality stuff is getting so sophisticated that it started me wondering when someone will make the first comment about "cold, hard virtual reality." (I guess I just did.)

\*\*\*

A computer for an editor? - *Wall Street Journal* writer Walter Mossberg wrote in the May 26 issue about a new computer program and some other fancy computerized stuff that to some extent does the job of an editor. I can only hope they don't fine tune that stuff to the point that it could replace me. A computer program might catch a few errors, but a bigger question is, could it provide the steady inspiration and strong moral leadership that I do?

- Larry Perrine

## Sandia LabNews

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**MARTIN MARIETTA**

## Take Note

The 10th reunion of the 1984 Eldorado High School graduating class is July 29-31 at the Albuquerque Marriott Hotel. There will be several activities and lots of fun. Several graduates have not yet been located. If you know of anyone from this class who has not been previously notified, contact Lisa Storie on 292-5267 or Kelley Borrowdale-Stoker on 292-6180.

\*\*\*

A breakfast and silent auction to benefit Martineztown House of Neighborly Service will be held Saturday, June 25, 8:30-10:30 a.m., at the Second Presbyterian Church (812 Edith Blvd. NE) multipurpose room. Breakfast includes pancakes, sausage, bacon, coffee, juice, and milk. Tickets are \$4 per person.

Martineztown, an old Hispanic village founded by the original settlers of Albuquerque, has become surrounded by urban sprawl but still functions as a village, and the old values of people caring for each other are still strong. Martineztown House of Neighborly Service is a United Way agency that has provided services to the village with programs for the elderly and school-age children for more than 50 years. For more information, please call 242-4333.

## Supervisory appointments

EDWARD WILLIAMS to Manager of Facilities Shared Systems Dept. 7813.

Ed joined Sandia's mechanical apprenticeship program in 1973. He has since worked in



ED WILLIAMS

various Facilities organizations, including the Maintenance Planning Department, Facilities Operations and Maintenance Department, and the Maintenance Management Program Office.

He has a BA in business administration and an MBA in business administration from the College of Santa Fe.

\*\*\*

SUE HENDERSON to Supervisor of Secretarial Services 12111.

Sue joined the Labs in 1980 as a division secretary under the VP 1000 secretarial coordinator. Other organizations she's worked for include the Safeguards, Nuclear Reactor Safety Research, Purchasing, Environmental Safety and Health, and ES&H Assessments departments.

She is working on a BA degree in management at the College of Santa Fe and is a Certified Professional Secretary. She is a member of Professional Secretaries International and the Junior League of Albuquerque. Before coming to Sandia, Sue was self-employed as a piano and organ instructor.



SUE HENDERSON

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FREDERICK LUETTERS to Manager of Security and Survivability Dept. 5822.

Fred joined the Labs in 1975 as a security systems engineer in the Security System Studies Division.

He has worked in the Nuclear Security Systems Center since joining Sandia, with the



FRED LUETTTERS

exceptions of a six-month assignment with the Future Options Group and a one-year assignment with the New Mexico Weapon Development Center's Dismantlement Program. Departments he's worked for include Systems Studies, Project Engineering, International Safeguards, and Security System Integration. He has managed many projects in safeguards and security for DoD and DOE applications, including security system installations at overseas NATO and Air Force sites. He also established and chaired a joint DoD/DOE working group to prioritize nuclear weapon dismantlement.

Fred has a BS in mechanical engineering from New York University. He was named Distinguished Member of Technical Staff in 1987. He is a California Registered Professional Engineer. Before coming to Sandia, Fred worked at Los Alamos National Laboratory.





# Sandia, Kaiser Permanente creating health-care model

May help reduce costs, improve services

By Mike Sheehan

Lab News Correspondent

In a wide-ranging effort to control costs and pinpoint effective services, the Southern California region of Kaiser Permanente has signed a cooperative research and development agreement (CRADA) with Sandia to develop a computer-based model for analyzing health-care delivery systems.

Called the Kaiser/Sandia National Health-Care Model, the project's goal is to produce a methodology and working model that will include all essential aspects of a large health-care organization.

"A primary concern of health-care organizations is to understand the costs and implications of their decisions," says Len Napolitano, Manager of Scientific Computing Dept. 8117. "To control costs and implement effective strategies, these organizations need access to a wide range of data, including facilities management information, disease models, financial figures, and patient records."

However, most institutions currently lack the integrated information required to make them truly knowledgeable about the impact of their policy decisions, Len points out. "As a result, we hope to develop a comprehensive computer model with Kaiser Permanente that incorporates the kind of detailed data necessary to provide superior patient services in a cost-effective manner," he says.

"One of the main values of this model," says Dr. David Eddy, senior adviser to Kaiser Permanente's Southern California Region, "is that it will enable decision makers to explore the implications of different decisions in a computer before committing to expensive programs. . . . With today's computing power, the model should be able to describe the health-care system for a region at a fine level of detail and to capture very complex relationships.

"For example, we should be able to forecast the effect of a diet education program on such things as the distribution of serum cholesterol levels in the population, the occurrence of coronary artery events, the backlog of primary care appointments, the need to recruit cardiologists, the budget for sterile gloves, and the need for overflow parking, looking up to five years into the future."

The jointly funded feasibility study will run

*"The model should be able to describe the health-care system for a region at a fine level of detail."*

for two years at a cost of \$1.8 million.

Under the agreement, Sandia will work with three Kaiser Permanente groups in the Southern California region, which includes 10 hospitals, 2.2 million patient members, a \$3 billion annual budget, 33,000 employees, and more than 3,000 physicians. For the study, Sandia researchers will

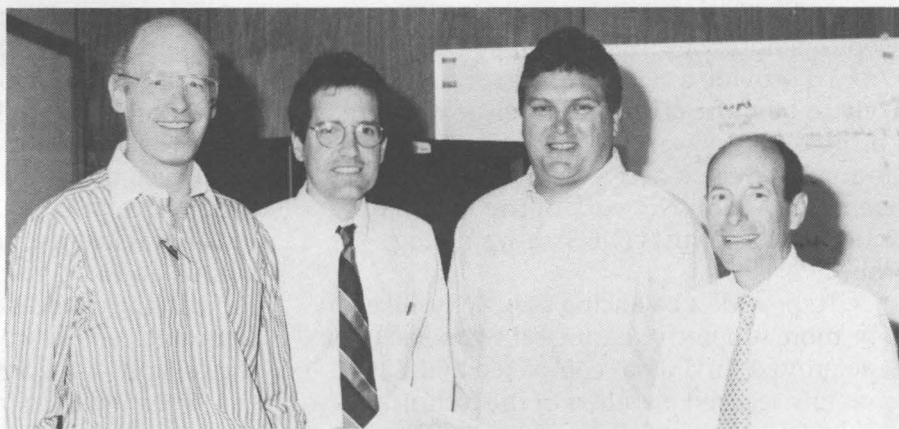
develop a reduced-scale computer model based on a generic facility with 100,000 members using synthesized patient information.

"As a non-profit organization, Kaiser Permanente wants to better understand the drivers for health care in terms of cost and patient outcome," Len explains. "For example, before spending money to implement a new cholesterol screening program, Kaiser Permanente would want to know that the cost of this preventive action will result in a positive benefit for patients, such as identifying coronary problems earlier and helping people lead healthier lives. An ounce of prevention is worth a pound of cure, so Kaiser Permanente hopes the computer model will help it invest expenditures wisely to maintain its members' health."

Len points out that by linking financial, facilities, patient care, and other aspects together in a single system, Kaiser Permanente can achieve a broad, top-down view of its entire operation. Although various groups within the organization currently understand the "micro behavior" of individual departments, Len hopes that adding up these underlying elements and aggregating the information will reveal the "macro behavior" of the entire Kaiser Permanente system.

"To build the system model, we will collect highly detailed, factual information from Kaiser Permanente personnel about how they handle patients and how they describe their facilities," Len says. "For the study, we will focus on three sample diseases: coronary artery, AIDS, and perinatal [birth-related] problems. We plan to identify unique words and natural language sentences that describe the system, and put together a list of sample questions that the model must answer."

For example, if Kaiser Permanente decision-makers want to know the cost of implementing



HEALTH-CARE CONFAB — Partners in the Kaiser/Sandia National Health-Care Model confer at a recent planning meeting. From left, Dr. David Eddy, a senior adviser to Kaiser Permanente; Len Napolitano (8117); Gary Rivord (13212); and Leonard Schlessinger, Manager of the Biomathematical Unit of Kaiser Permanente.

## Sandia California News

a prevention program for coronary artery disease versus performing surgical treatment after a patient suffers a heart attack, the model will provide detailed analysis.

"Our complex model may answer questions down to the basic level of 'How many new parking spaces are required if Kaiser Permanente initiates an annual cholesterol screening program?' " Len says. "Today, decision-makers must often form educated guesses regarding the impact of a proposed treatment policy, but comprehensive information can eliminate the guesswork."

Once Sandia completes its portion of the feasibility study, Kaiser Permanente will evaluate the model and decide if it provides a valid way to generate useful answers to important questions.

### Companion to weapons model

"In the future, comprehensive medical information systems will have a profound impact on health care and key policy decisions," Len says. "As a tool of the next century, computer-based technology will provide a detailed understanding of what is necessary to maintain the health of each individual patient, while at the same time helping to control costs."

In addition to the health-care model, Sandia scientists are simultaneously working on a companion project designed to model the active life cycle of nuclear weapons from production to dismantlement. Len emphasizes that the synergistic benefits of doing the two programs together serve as a strong motivator for the researchers because answering questions in one area can help them achieve a better understanding in the other.

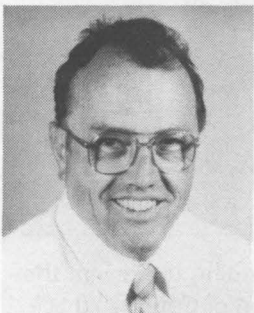
"The health-care and weapons maintenance programs have a large amount of overlap in the underlying technology required to develop modeling abstractions," Len says. "Both projects deal with aging populations, a fixed set of facilities, written guidelines on how to perform certain operations, and the need to capture information over time and control maintenance costs. As a result, a strong coupling exists between the two programs, and discussions about one will stimulate ideas that need to be captured within the other model."

Sandia employees also participating in the modeling projects include, from California, Ann Yoshimura (8112), Michael Johnson, Robert Mariano (both 8114), Roger Tilley (8116), Bill Mason (8117), and contractor David Butler, and from New Mexico, Gary Rivord, Steve Becker, Scott Joyce, and Olin Bray (all 13212).

## Supervisory appointment

DENNIS NELSON to Manager of Test & Evaluation Dept. 8283.

He joined Sandia/California in 1966 as an MTS in the Test Department, working on pulsed power systems and then vibration test systems for 12 years. He has been back in the test arena for the past nine years. In the interim he worked on Phase 2A of the Ground-Launched Cruise



DENNIS NELSON

Missile and served as lead mechanical engineer on the B-83 Modern Strategic Bomb. Before joining Sandia he was an assistant professor in the electrical engineering department at the University of Nebraska for three years.

He has BS and MS degrees in electrical engineering from the University of Nebraska and a PhD in engineering from UC Davis.

Dennis is a member of the Institute of Environmental Sciences, serves on the Test Advisory Group for the Shock and Vibration Information and Analysis Center, and serves on the Society of Automotive Engineers G5 Aerospace Shock and Vibration Committee.



# National survey

(Continued from page 1)

to provide views of the general public. Each telephone interview took about 40 minutes.

- To provide a scientific perspective likely to be more critical of nuclear weapons, a printed survey was completed by 1,155 randomly selected active members of the Scientists' Action Network of the Union of Concerned Scientists (UCS), a watchdog group.

- To provide a balancing perspective likely to be more supportive of nuclear weapons, the same printed survey was completed by 1,226 randomly selected members of the technical staffs of four national laboratories: Pacific Northwest Laboratory, Lawrence Berkeley Laboratory, Sandia National Laboratories, and Los Alamos National Laboratory.

(Within Sandia the survey was sent to 900 randomly selected members of technical staff; about 70 percent responded.)

"We were trying to determine how selected members of the US public perceive nuclear weapons in the post-Cold War environment," says Hank Jenkins-Smith, associate professor of political science at UNM and the principal investigator for the research. "We also wanted to identify parameters that influence policy debates on nuclear weapons.

*It is the only study of its type conducted since the dawn of nuclear weapons.*

"We were looking at how people perceive these issues," he emphasizes, "and we wanted to understand their belief systems."

Among other questions, all groups were asked their assessments about external nuclear threats (nuclear proliferation, terrorism, and war), internal nuclear (safety) risks, the utility of nuclear weapons for preserving peace and bolstering US international leadership and prestige, and domestic benefits of nuclear weapons regarding such things as jobs and the economy.

## Agreements and disagreements

"I've looked at all the previous major surveys," says project leader Kerry Herron, also of the UNM Institute for Public Policy, "and since World War II no one has asked these kinds of questions." He says this also appears to be one of the first surveys about nuclear weapons in

which a broad range of scientists were asked their views.

One of the areas of greatest agreement among the three groups concerned the external threat of nuclear proliferation, says Herron, who helped design the survey. Three out of four respondents thought the likelihood of nuclear proliferation had grown since the end of the Cold War, and similarly strong majorities judged the risks to the US from further proliferation to be high. The threat of nuclear terrorism was likewise rated high by all three groups, and 61 percent of all respondents thought the chances of nuclear war occurring somewhere in the world had increased since the collapse of the Soviet Union.

"There was also high agreement about the persistence of nuclear weapons," he says. Sixty percent of all respondents said it would not be feasible to eliminate all nuclear weapons in the next 25 years.

Substantial disagreement among the groups occurred on the topic of perceived risks. The public and UCS groups estimated the risks from the manufacturing, testing, transporting, storing, and disassembly of nuclear weapons to be above mid-scale, says Herron. The national labs' group perceived the risks to be about half as great as the other two groups.

In the area of utilities and benefits of nuclear weapons there were also important differences. Here, however, the public and the participants from the national labs tended to have similar and generally positive views of the utilities and benefits to the nation of nuclear weapons, with the UCS group perceiving considerably lower utility.

A majority of all three groups considered maintaining military superpower status important to US national interests. A majority of public and national lab respondents considered nuclear weapons to be important to US prestige and international leadership. Less than half the UCS respondents agreed. Eighty-two percent of lab respondents and over half of respondents from the general public considered nuclear weapons to have played an important role in preserving the American way of life during the past four decades. Only 40 percent of UCS participants concurred.

The study reveals that beliefs about the importance of retaining nuclear weapons are most strongly correlated with perceptions of the external threat and of the utility of nuclear weapons for achieving US national security objectives.

"Perceptions of nuclear threats, risks, utilities, and benefits systematically affect nuclear weapons policy preferences in predictable

## Survey shows Sandia's 'on right track,' says Hagengruber

Sandia's Defense Programs activity supported the UNM survey on public perceptions of nuclear weapons from the beginning. "We had a desire to understand what directions the public would support in defense," says Roger Hagengruber, VP for Defense Programs 5000. "We think it's very important to know."

"The results from this study make us believe that we're on the right track at Sandia with regard to our Strategic Plan and our Defense Programs activity," he says.

"For example, our emphasis on non-proliferation, arms control, and security against terrorism is exactly in line with the public's concerns about those same matters, as shown by the survey," says Roger.

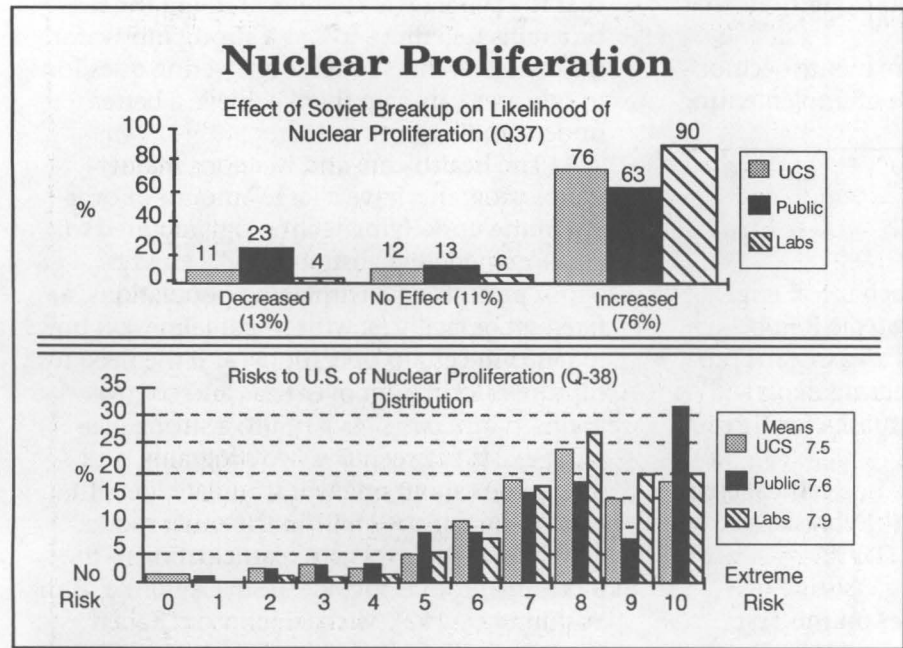
"Also, our emphasis on safeguards and security of nuclear weapons is directly in line with the public's desire to have firm controls to prevent any unauthorized or accidental use of a weapon."

ways," says Herron. "This is important to us. It shows that the public draws conclusions in quite sensible ways."

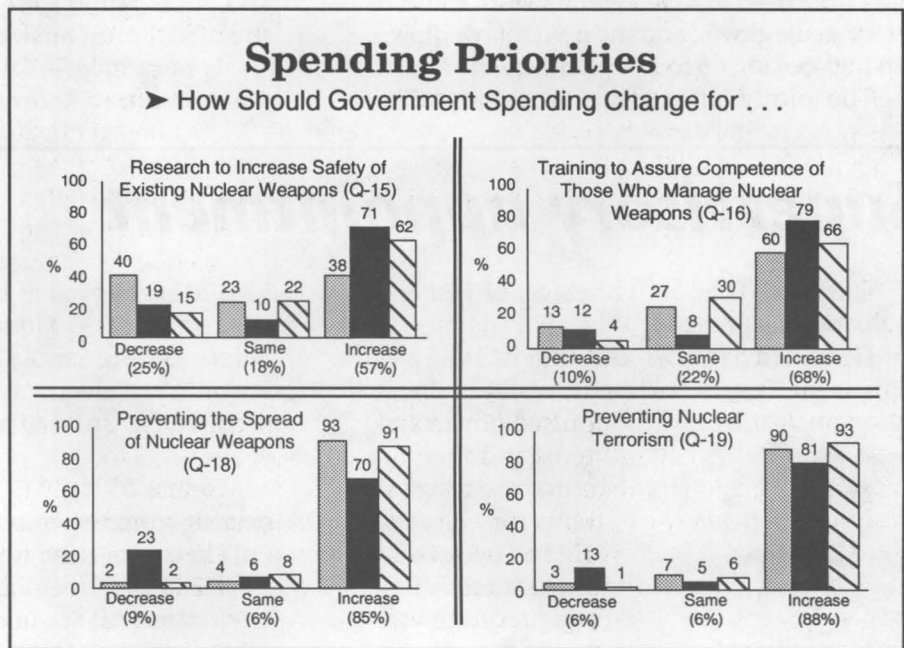
## Whom do you trust?

Substantial differences existed in the level of trust the three groups assigned to different sources of information about nuclear weapons. Overall, the general public sample considered information provided by university scientists and watchdog groups to be most trustworthy, and judged Congress, the Department of Defense (DoD), and the media least reliable. The UCS participants also ranked university scientists and watchdog groups highest, but placed the Department of Energy and DoD at the bottom. Lab respondents judged scientists at the national labs and at universities most credible, and most distrusted watchdog groups and the mass media.

Regression analyses provided a valuable perspective about trust. With all three groups the study found a statistically significant relationship. (Continued on next page)



NUCLEAR WORRIES — All three respondent groups agreed that there is greater likelihood and greater risk to the US of nuclear proliferation since the breakup of the Soviet Union.



NUCLEAR SPENDING — All groups strongly supported spending to prevent the spread of nuclear weapons and nuclear terrorism. The Union of Concerned Scientists group was divided over nuclear-safety R&D.



# Reengineering

(Continued from page 1)

Sandia that will allow everyone at the Labs — regardless of organizational, geographical, or technological barriers — to make better use of information technology.

The Lab News talked to Mike recently; here's what he had to say.

**LN:** So your job as Chief Information Officer is to get us all connected, right?

**Mike:** That's right. There's a corporate desire to gather some existing information services organizations at the Labs under one roof, with the goal of building a coherent information infrastructure at Sandia and managing information as a corporate asset. The theme is to improve our overall efficiency and connectivity.

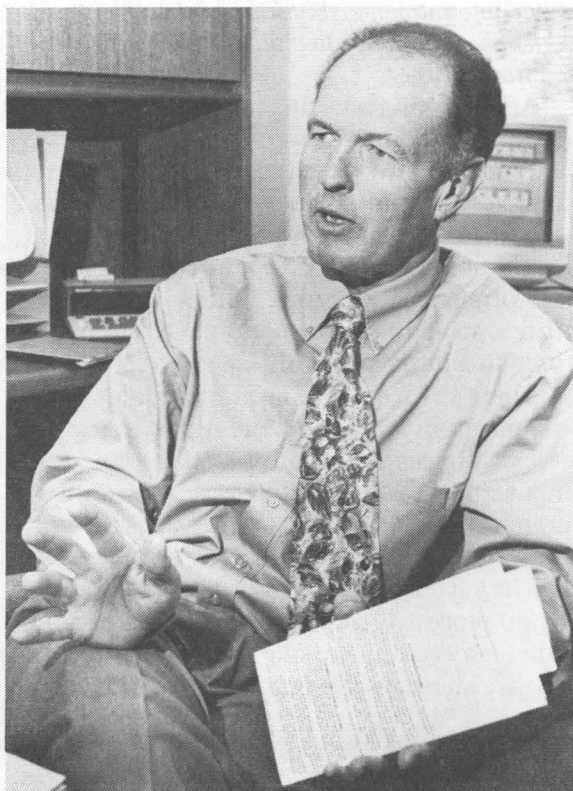
Ultimately what we want to do is provide information services to all employees independent of their organizational and physical locations — to try to get away from this rich kid, poor kid model for providing access to information.

**LN:** You said the goal of the CIO organization is to manage information as a corporate asset. How?

**Mike:** We plan to provide ready access to information. To do that, we need to get away from this mode of everybody accessing large mainframes to retrieve corporate information. That's the architecture of the 1970s and '80s. In that architecture, everybody competes with everyone else during the transaction process. Instead we need to adopt more of a corporate client-server topology.

**LN:** A client-server topology?

**Mike:** Yes. You want to set up an electronic infrastructure that serves as the hub for corporate information, surrounded by a ring of data servers, or data warehouses, from which people retrieve information. The reporter of information — the human resources organization, for example — puts HR information out on a data server and updates it at the appropriate time. The person retrieving the information inter-



MIKE EATON (13100) plans for the new Chief Information Officer organization to help Sandians merge onto the information superhighway, but they'll have to tolerate a little "road construction" in the meantime.

faces with the data servers through his or her workstation.

A client-server topology eliminates the frustration of having to deal with myriad systems to obtain data. Employees should have a single entry point, a single password, and an intuitive geographical user interface.

**LN:** What kind of information would these servers, or data warehouses as you call them, contain?

**Mike:** For starters we're talking about technical information, business processes, finance and procurement information, facilities information, human resources information, forms, manuals — whatever information people need to do their jobs.

At Sun [Sun Microsystems, Inc.], employees can pull down their 401K accounts, they can decide what their distribution levels are and

then change those distributions. They can look at what HR has for them, or they can look at purchase orders or work orders and see where their work processes are.

**LN:** In our area, we might put the Weekly Bulletin on this system.

**Mike:** Yes, absolutely. Telephone directory. Whatever.

**LN:** You've said that we need to pull information, not push it. What does that mean?

**Mike:** Well, you can create a flood of information with E-mail that will drive you nuts. Every time somebody wants to broadcast some information, they tend to push it right to your workstation, and you have to wade through all that information whether you need it or not. Information at the wrong time is like no information at all.

What you want to do is place information in a data server, and then people pull down information when and how they need it. Potentially then — and I'm ahead of my headlights here — you would use E-mail to notify people that the information is available.

**LN:** Other people have used the analogy of an "information utility company."

**Mike:** That's right. We'd like to provide a service to information users that's consumption-based, just like the power company provides electricity or the city provides water based on how much their customers use. Information users might require x amount of bandwidth, or x amount of workstation capability, or whatever. If you're a super user and you require more bandwidth or memory, then you can subscribe to additional capacity.

The CIO organization will own the building wiring, the servers where information is stored, the technical data bases, and a part of each desktop. Users will pull down information when they need it.

**LN:** So this is a chargeback situation?

**Mike:** Yes. There would be two types of services — a basic set of services to which all employees are entitled, such as E-mail and

(Continued on page 6)

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relationship between perceptions of trust and perceptions of risks and utilities associated with nuclear weapons. As trust in official government information about nuclear weapons increased, nuclear weapons were perceived to be less risky and to have greater utility. "Conversely, as trust in information about nuclear weapons provided by nonestablishment sources increased, perceptions of risks increased and perceptions of utilities decreased."

"By increasing trust," says Herron, "you not only increase the utility perceptions but decrease the risk perceptions."

## Policy preferences

In the area of policy and spending, two out of three respondents thought the national labs should pursue technologies that might make existing nuclear weapons safer, but 91 percent of the UCS participants, more than half of public respondents, and nearly half of the labs' personnel did not think the national labs should pursue technologies for new nuclear weapons.

Strong majorities of all three groups felt that spending for developing and testing new nuclear weapons should decrease.

But about half the general public and lab respondents considered underground nuclear testing to be important for the safety of nuclear

weapons. Three out of four UCS respondents disagreed.

All groups supported further negotiated reductions in the levels of nuclear weapons,

but there was also strong support among the lab and public respondents for retaining a nuclear arsenal. UCS respondents were more equivocal about this.

## Sandia commissioned 'very valuable' survey

Sandia commissioned the University of New Mexico's Institute for Public Policy to do the unique survey on public perceptions of nuclear weapons, and the results were previewed last month to members of Sandia's Quality Leadership Council.

According to Dick Schwoebel, Director of Surety Assessment Center 12300, they were received with considerable interest. He and Dave McVey, formerly manager of Sandia's Defense Programs Washington Liaison Office 5609 and now in Assessment Program Office 5408, initiated the survey. The study group briefed Victor Reis, Assistant Secretary of Energy for Defense Programs, at DOE Headquarters in Washington June 2.

"We see the survey as a very valuable activity," says Dick. "It is important to understand as clearly as possible public and other views about issues related to nuclear

weapons."

Dave agrees. "Our thrust was to find out what our ultimate customer — the public — thinks about this subject."

The results, they say, should be important to all national policy makers.

As for Sandia, Dick says one conclusion based on the survey results is that "the public attaches considerable importance to concepts related to the utility of nuclear weapons — deterrence, prevailing in times of conflict, and so on. Also, it would be useful to speak more effectively of our efforts aimed at achieving high levels of surety since this is an obvious area of public concern."

Sandia plans to publish the survey results soon as a SAND report. The title is "Public Perspectives of Nuclear Weapons in the Post-Cold War Environment."



# Reengineering

(Continued from page 5)

electronic connectivity, that would be an indirect charge like phones. Supplementary charges would be assessed for added capabilities on a consumption basis.

**LN:** How would the rates be set?

**Mike:** We need to find a new way of doing this. We plan to set up a Public Service Commission as a steering committee to set the rates and the fees to enter the system. There would be an effort to keep costs down. After all, the main reasons for reengineering are to reduce costs, add value, and become more efficient.

**LN:** Why hasn't this happened yet at Sandia?

**Mike:** The problem now is that there are little pockets of LANs [local area networks] and MISs [management information systems] everywhere, and they are set up based on organizational efficiencies as opposed to geographical or corporate efficiencies. If you take a building like 802, for instance, you've got several organizations in there, and each organization has its own LAN organization that services its own particular functionality, as opposed to a corporate entity that brings information right to your desktop. That's all got to get worked out.

**LN:** Are we going to come to a point where we will tell people what hardware and software they can and cannot buy?

**Mike:** I think a lot of people are worried about this aspect of my job — you've got the Mac users, the PC users, and the Unix users — and they're all worried that we're going to come in and rip out their workstations.

But we have to keep our eye on the ball — adding value, saving costs, being more efficient. If you're going to be able to download corporate information to employees' desks, you're going to need workstations that have similar kinds of horsepower, and you need to keep the connectivity right. So there're going to be some restrictions from a business standpoint, and individual organizations may have to support a few different interface systems, but we don't ever want to restrict anybody from using the kind of workstations and software they need to accomplish their missions.

**LN:** You refer to this electronic infrastructure

as an "information architecture." What physical work needs to be done to build this new information framework?

**Mike:** We'll focus first on installing the necessary building wiring, setting up the server hardware, and dividing the data architecture along very specific business lines. That's important because an employee working from a workstation might need to retrieve combinations of information from multiple business entities, so all that information needs to be stored in a retrievable fashion.

There's also a whole layer of middle-ware — application tools and what-not — that serves as translators, or brokers, that should add flexibility as to what variety of software and hardware people can use to access the corporate architecture.

The CIO organization will also look at information processes, corporate applications, computing resources, and desktop compatibility — these are all issues that need to be managed.

**LN:** Is Sandia behind in getting its information infrastructure up to date?

**Mike:** Yes, but we aren't unique in this. Every successful company out there has experienced the same problem. The technology evolution that broke out in the late '80s made it affordable for every one of us to pick our own PCs, our own software packages, and to cluster ourselves around our little stovepipes.

This happened across the US. But because everybody did it their own way, the notion of a corporate entity sharing data just became impossible. Now every successful company — if you look at what Hewlett Packard is doing, and Sun — has created an organization just like ours to centralize some of these corporate ways of doing things.

Another problem is that in the past we've been dependent on the Air Force as the provider of our information services, like telephones [at the New Mexico site]. We kind of got caught, and now we're not as modern as we should be. In fact, Sandia/California is in better shape than we are from an infrastructure and wiring standpoint. They were able to get started faster, without the same kind of ground rules that we had living on a military base. Once the New Mexico site gets up to California's level of internal connectivity, I think it'll help bring the two sites closer together, electronically speaking.

So I don't think Sandia is unique. I think

we are a little slower at getting out of the starting blocks, but I don't think we're years behind. Maybe a year or so. The thing that we kept stumbling over — the thing that kept getting put in the "too hard" pile — was the initial investment you have to make in your building wiring.

**LN:** Won't a lot of this new technology be obsolete by the time we get it up and running?

**Mike:** The key is not to get ourselves tied too intimately to a particular vendor or technology so that by the time we institutionalize them, the technology is obsolete. The wiring approach we are employing will last well into the future.

**LN:** You have about 475 people working for you right now. How big do you expect this to get?

**Mike:** The numbers will vary depending on how far along we are. It also depends on how much of this job we can manage through the budgeting process, and how much of it requires co-location, or matrixing.

**LN:** Your organization is envisioned as not a permanent organization. You have a limited lifetime, right?

**Mike:** That's right. Part of the organization will have a limited lifetime. The desire is to gather together all of the services needed to create some efficiencies and to retrain people who are using information in a less-than-efficient way. Then eventually the organization should shrink. So the CIO organization will go through a bubble of expansion for a three- or four-year period. However, the corporation will probably always have a CIO.

**LN:** A primary goal of reengineering and of the CIO organization is to help people do their jobs more efficiently. Is that another way of saying that in the future we don't need as many people?

**Mike:** In my former organization, we were prevented from taking on new work because of a lack of data modelers, information manipulators, graphical user interface people, and I would've given anything for 20 or 30 people to start some of this new work. The people with computer skills that are now maintaining this inefficient LAN-based system are the same people we need to perform some of the new direct work that's coming in. It's going to require some retraining, but we're going to have to make an intense effort to move some people from our indirect processes to our direct processes.

But people don't need to be frightened of reengineering, if they think of it as a chance to be more agile, more flexible, more mobile, more productive, lighter on their feet.

**LN:** When can employees start to see visible results of the new information architecture?

**Mike:** The truth is they're seeing them already. ISDN phones are here. E-mail is becoming much more pervasive. Several buildings are being wired as we speak [see "Rewiring under way in many Labs buildings."]. So the process is already started. Reengineering has just accelerated that process. — John German

## Rewiring under way in many Labs buildings

Workers are already installing new conduits and pulling new wires in several Labs buildings as part of Sandia's accelerated information infrastructure project. Several other large buildings are scheduled for work soon.

Bob Dougherty, Manager of Communications Programs (NM) Dept. 13906, says by the end of calendar year 1995, 7,500 desks in Sandia's larger buildings are scheduled to be rewired. (Chief Information Officer Mike Eaton, 13100, cautions, however, that some difficult financial commitments need to be made before this schedule is finalized.)

Here's the current work schedule:

Bldg. 836 — Under way and scheduled to continue through July.  
 Bldg. 891 — Under way and scheduled to continue through September.  
 Bldg. 804 — Under way and scheduled to continue through July.  
 Bldg. 890 — Under way and scheduled

to continue through December.

Bldg. 892 — Under way and scheduled to continue through December.

Bldgs. 821, 823 — Under way and scheduled to continue through April 1995.

Bldg. 962 — Under way and scheduled to continue through January 1995.

Bldg. 858 — September 1994 through May 1995.

Bldgs. 805, 806, 807 — October 1994 through October 1995.

Bldg. 960 — January through May 1995.

Bldgs. 800, 801, 802 — January through November 1995.

Bldg. 859 — July through November 1995.

Bldg. 887 — April through November 1995.

Bldg. 856 — July through November 1995.

Bldg. 956 — July through November 1995.

## Welcome

*Albuquerque* — Thomas Laiche (7714), Michael Light (7714), Danny MacCallum (1831)

*Other New Mexico* — David Tipton (5165)

*Arizona* — Marc Gunkel (10326)

*Connecticut* — Elizabeth Krauss (11300)

*Florida* — James Brangan (1824)

*Indiana* — Robert Hawley (9133), Deirdre Wenzel (2274)

*Texas* — Anthony Heller (1415), Kathryn Nagy (6118)



# Strategic Plan

(Continued from page 1)

two plans, much has changed around the world.

"The 1990 plan was written after the fall of the Berlin Wall," Joel says, "but while the Soviet Union still existed. This was the first Sandia planning effort in the environment of the former Soviet Union."

Another important feature of the new plan, he says, is that it has taken into account new ways of looking at DOE roles and responsibilities within a new administration, including new DOE defense programs planning and the new DOE plan.

Paul Shoemaker, Manager of Strategic Planning Program Office 4514 and the designer and facilitator of SQLC sessions dealing with the new strategic plan, says it is built around five mission-related objectives and four operational objectives (see "Strategic Plan targets excellence in staffing"):

## Mission-related Objectives

- Mission Success
- Research Foundations
- Strategic Thrusts
- US Industrial Competitiveness
- Sandia Production Responsibilities

## Operational Objectives

- Quality
- Business Management
- People
- Environment, Safety, and Health

The Labs' three strategic thrusts — advanced manufacturing, electronics, and advanced information technology — provide an integrating force across the Labs, says Paul.

"They position us very well for the possibility that we may be able to take on additional mission assignments in the future," he says, "depending upon what comes out of Congress and what comes out of DOE's

strategic thinking."

Bruce Dale, Manager of Institutional Plan Program Office 4511, says even though the new plan is an independent plan in itself, it also is a logical extension of the old one.

"The distinctive thing about this strategic plan is the business focus it has, compared to the 1990 plan, whose intent was to initiate a process of cultural change in the Labs," says Bruce. "This new one proceeds from where the 1990 plan left off. It allows the cultural change to continue, but goes further by providing some business and operational guidance."

## Business processes very important

Joel agrees, saying that during planning sessions, discussion turned several times to agreement that the new strategic plan infuses quality into the actual conduct of business at Sandia. "Because of all the pressure on the Labs from external forces," he says, "it's more important than ever to have state-of-the-art business processes."

For example, he says, one new objective found in the '94 plan deals with the fact that for the first time in many years, Sandia is going to be manufacturing selected components, which is a new Labs production responsibility within the nuclear weapons complex.

But even though this is something new for Sandia, says Paul, "Our ability to focus on manufacturing and advanced manufacturing processes positioned us quite well to assume those responsibilities, so we see all this feeding together in a highly integrated fashion."

## Operational Plan also developed

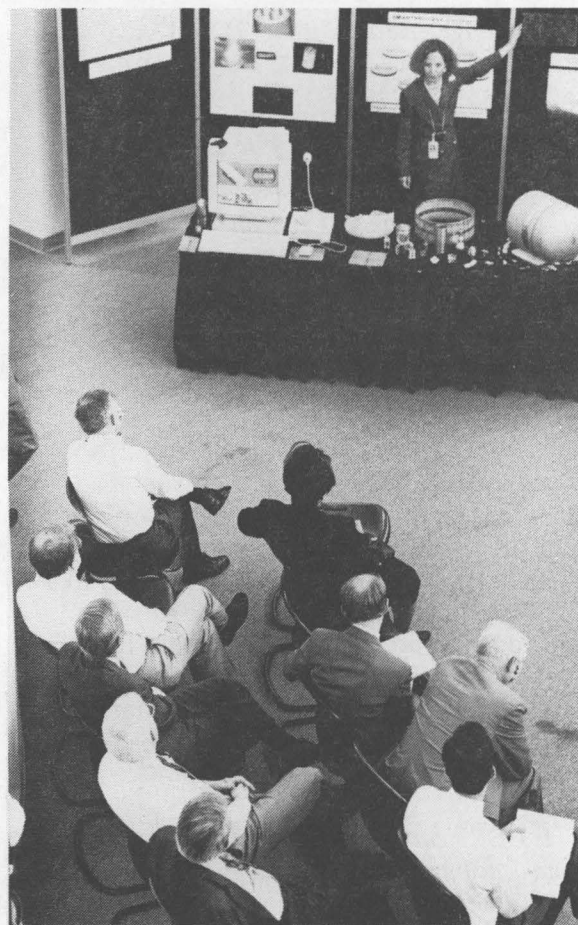
Joel says development of Sandia's first Operational Plan began in parallel with the Strategic Planning process. That permitted dovetailing the strategic vision of the Labs with the business issues of arriving at that strategic goal.

He explains that strategic planning usually

concentrates on a longer period, such as 10 years, while an operational plan usually is shorter, covering the next five years.

One fortuitous aspect of developing an operational plan now, he says, is that it enables planners to tie together several major business processes, including, for example, the spend plan, strategic staffing, and the strategic space plan.

A simple description of strategic versus operational planning, says Paul, is that a strategic plan is a top-down look at the organization's future, and an operational plan is a bottom-up response to that strategic vision that fills in the blanks with a great deal more detail.



**GALVIN SUBGROUP** — Representatives of the National Security Subgroup of the Galvin task force get a briefing on smart manufacturing processes from Kim Mahin, Manager of Technology Integration Initiatives Dept. 1717, during the subgroup's visit to Sandia June 16. The subgroup, headed by William Spencer of SEMATECH, spent a day and a half at Sandia. The task force, headed by Robert Galvin of Motorola, is assessing alternative futures for the DOE national laboratories at the request of Secretary of Energy Hazel O'Leary.

## Strategic Plan targets all-around excellence

The five mission-related objectives are:

1. **Mission Success** — Achieve mission success and customer satisfaction through superior technical execution and program management. Pursue products based on Sandia's strategic thrusts (advanced manufacturing, electronics, and advanced information technology) in all three Labs sectors: Defense, Energy and Environment, and Work for Others.

2. **Research Foundations** — Sustain and stabilize the Laboratories' research foundations. Ensure the capability for attracting and developing the best research talent in various disciplines.

3. **Strategic Thrusts** — Enhance the Laboratories' effectiveness by pursuing unifying technical thrusts in advanced manufacturing technology, electronics, and advanced information technology, which integrate our core competencies, facilities, and special capabilities.

4. **US Industrial Competitiveness** — Make measurable contributions to the global technology leadership of US industry. Institutionalize the interaction of all Sandia programs with appropriate industry elements. Promote the national laboratories' role as a bridge from research to application in collaboration with universities and industry. Achieve permanent mission status for a DOE laboratory role in supporting US economic competitiveness within five years.

5. **Sandia Production Responsibilities** — Assume new production responsibilities as

requested by DOE to support the stockpile's need for an ongoing, low-volume supply of certain nonnuclear components.

The four operational objectives are:

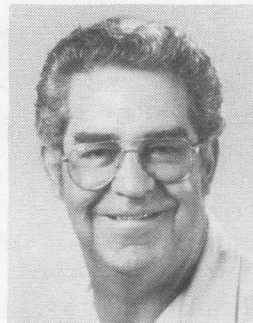
1. **Quality** — Live up to our commitment to total quality through customer satisfaction and continuous improvement in everything we do: in our research and engineering; in our products and services; and in all our work processes.

2. **Business Management** — Achieve outstanding business management in all our administrative systems. Strive to meet DOE's expectations for excellence in management practices. Operate the Laboratories in accordance with best business practices to strengthen DOE's confidence in Sandia as a well-managed organization.

3. **People** — Achieve mission success through talented, diverse people working in agile teams. Encourage a work environment in which every employee has the opportunity to achieve personal success. Manage staffing levels prudently to provide for current and future programmatic and institutional needs. Be a good corporate citizen by supporting the economic vitality of our communities and encouraging community involvement by Sandians.

4. **Environment, Safety, and Health** — Maintain our enduring commitment to protect the safety and health of all Sandians and visitors to our sites. Be a good corporate citizen by protecting the environment wherever we conduct operations.

## Recent Retirees



Robert Vasquez  
9311



Gary Miller  
9322



Hank Passmore  
9331



Leo Armijo  
7613



# Benefits specialists explain changes in pension plans

## Questions raised before and during May 25 forum

As promised in the June 10 *Lab News*, here is the first installment of questions and answers stemming from the May 25 forum on the Labs' retirement plans and other benefits. Because many questions address the same, or closely related, issues, Sandia benefits specialists have combined them and provided a single answer to each basic question.

Mark Biggs of Pension Fund/Benefit Program Management Dept. 3542 says videotapes of the forum are available at the Technical Library at Sandia/New Mexico, and from the Benefits Organization (Bldg. 911) at Sandia/California. He also says any further questions should be addressed to him.

### Process, background for changes

*Were the recently announced changes in the plans the only proposals submitted to the Sandia Board of Directors and DOE for approval? If other proposals were also presented, who vetoed them?*

Yes, the recently announced changes to the pension plans were the only proposals submitted to Sandia's Board of Directors and DOE. However, the Board of Directors also discussed at its last meeting the issue of ad hoc increases for retirees, but no action was taken at that time. (Questions concerning retiree ad-hoc increases will be discussed in a later installment of questions and answers.) Prior to being presented to the Board for approval, the final changes had been reviewed by several levels of management at Martin Marietta Corp., and had been informally discussed with DOE.

*Is DOE's current agenda a limiting factor on future pension plan improvements?*

The terms of the contract between Sandia and DOE to operate Sandia National Laboratories provide that Sandia "shall obtain approval from the [DOE] Contracting Officer prior to making a change in pension plan benefits." The resolutions recently adopted by Sandia's Board of Directors changing pension benefits contain a provision that makes those changes contingent on final DOE approval. Sandia cannot unilaterally change pension benefits without obtaining approval from DOE.

*Is it possible to go back to Sandia's Board of Directors and DOE to renegotiate these latest changes? If this is not possible, what is the time frame before further improvements could be made to the Plans?*

While Sandia management is not precluded from returning to its Board of Directors and DOE with new recommendations, we do not believe that the submission of further proposals would be practical or well received at this time. Sandia's new pension benefits compare well against benchmarks. While Sandia will continue to review the pension plans, we believe that the benefit produced by the plans is very competitive, and we do not anticipate further formula improvements in the near future.

*Is there a stated or implied policy that Sandia pension plan benefits will follow (not lead) Martin Marietta's company pension plans?*

No, Sandia has neither a stated nor implied policy that its pension plans will follow the design of other Martin Marietta company pension plans. Indeed, the pension plans of Martin Marietta Corp., Martin Marietta-Energy Systems, Martin Marietta-Specialty Components, and Sandia are dissimilar. Nevertheless, future proposals will be reviewed by management at Martin Marietta Corp., who will presumably con-

sider the comparability of Sandia's benefit structure to that at other Martin Marietta facilities.

*Is a formal process being considered to solicit employee and retiree input into the design of our pension and other benefit plans?*

Charlie Emery, Vice President of Human Resources Division 3000, announced during the May 25 forum that he will soon form employee and retiree focus groups in New Mexico and California to provide information and solicit input on pension and other human resource issues. In addition, he anticipates a series of meetings and forums with the larger population of employees and retirees.

*What options are available for current employees to indicate their dissatisfaction with the current retirement plans?*

The May 25 forum was an important first step in maintaining a dialogue on pension issues between the Human Resources Division and employees. We hope that future sessions and the focus groups will provide an opportunity for interested employees to ask questions and provide input on benefit issues.

### Basic plan design

*What are the criteria used to establish the pension plan benefits?*

Beginning in 1975, Sandia's pension benefits were largely patterned after similar benefit plans at AT&T. This practice helped ensure that our pension benefits were competitive, since AT&T's benefit structure was shaped to a large extent by competitive market pressures. In the future, Sandia's plans will be monitored and reviewed to ensure that they continue to provide competitive benefits that replace an adequate percentage of final earnings for career employees.

*Do the benefits of the pension plans depend upon the amount of assets in the plans?*

No, the benefits provided by the Retirement Income Plan (RIP) and the Pension Security Plan (PSP) are fundamentally not determined by the level of assets in the plans. Both RIP and PSP are defined benefit pension plans, which means that the benefits paid by the plan are determined by such features as the plan formula, the provisions for early retirement, and the distribution options, such as the survivor annuity coverage. The plan sponsor, in this case Sandia, promises to pay the benefit generated by the plan's provisions regardless of the level of assets in the plan. In contrast, your benefit under a defined contribution plan, like the Sandia Savings & Income Plan, is completely dependent on the level of assets you accumulate in your individual account through your contributions, company match, and investment earnings.

*Have the minimum age and service requirements to qualify for a service pension changed in the revised plan? Do these requirements constitute reverse age discrimination?*

No to both questions. Employees must still meet the same minimum age and service requirements described in the prior plan descriptions in order to qualify for a service pension from either plan. These requirements are interconnected with other features, such as the early retirement penalties, the survivor annuity option, and entitlement to other post retirement benefits. A 1992 Hewitt Associates survey of major US employers indicates that such age and service thresholds are

widely used, with only three percent of surveyed plans using an approach based on the sum of an employee's age and service (e.g., rule of 85). That same survey reports that only eight percent of plans permit retirement at age 55 with unreduced benefits. The minimum age and service requirements are beneficial provisions that allow employees to retire before normal retirement (age 65) and they serve to counter "reverse" age discrimination.

*Does the recent management pension plan revision really represent an improvement over prior years?*

The recent change in the RIP benefit formula returned the Plan's income replacement ratio (i.e., the pension benefit as a percentage of final earnings) to approximately the same level generated when the formula was last updated in 1991. Since this change is an update in the formula that automatically adjusts with changes in salary, it represents a real improvement over the benefit generated by the prior modified career average approach, which began to deteriorate as percent of final pay soon after each update in the base period. The following table represents replacement ratios [percentage of full-time final pay] for representative retirement-eligible employees and retirees with 30 years of service under the current and prior RIP pension formulas:

|                     |              |
|---------------------|--------------|
| April 1994 .....    | 42.2 percent |
| June 1991 .....     | 41.7 percent |
| January 1991 .....  | 39.4 percent |
| June 1988 .....     | 40.5 percent |
| October 1985 .....  | 37.5 percent |
| October 1983 .....  | 37.1 percent |
| February 1982 ..... | 37.0 percent |
| October 1980 .....  | 39.2 percent |

*An employee who retired in September 1993 receives a lesser pension benefit than a similar employee who retired in October 1993 after the effective date of the RIP formula change. Is this legal under ERISA?*

Yes, this disparity is legal under ERISA. Sandia formally began review of possible plan changes in late October 1993, and employees and prospective retirees were notified of the review shortly thereafter. Employees who retired prior to the effective date of the change — Oct. 1 — received the benefit they were promised under the plan at the time of their retirement and they presumably made their decision to retire when they did with full consideration of existing economic and personal factors.

## Employee death

Sarah Higgins of Accident Analysis/Consequence Assessment Dept. 6413 died June 5 after a long illness.

She was 56 years old.

She was a member of technical staff and had been at Sandia since 1974.

Sarah is survived by her husband Frank.

## Sympathy

To Preston Terry (5838) on the death of his father in Ohio, May 13.

To Fred Norwood (1432) on the death of his mother in California, May 22.

To Mary Chapel (5102) on the death of her daughter Kimberly, May 25.



## Sandia's Ansel Adams photographs now on display

**Signed prints cost Sandia \$150 in 1964**

We've all heard of lucky people who buy old paintings at a garage sale and later discover there's a priceless Van Gogh among them, or who find a great author's manuscript in their basement.

Recently a pricey collection of fine art was discovered in Sandia's "basement," and employees in Printing/Photography/Electronic Imaging Dept. 7154 have now dusted it off and displayed it for all Sandians to enjoy — 15 signed, black and white photographic prints by renowned nature photographer Ansel Adams. Fourteen of the 15 prints are now exhibited in the Bldg. 802 lobby.

### A photographer of growing renown

The photos were bought in the mid-1960s by Sandia's Photo Lab to serve as reference tools for its photographers and darkroom technicians as they printed scenes for display in laboratory buildings. The supervisor at the time, Tom Zudick (ret.), bought the prints for their superior artistic composition, their subtle contrasts, and the care Adams had taken in developing the prints. At the time, Adams was a photographer of growing renown.

In 1964, the 15 signed prints — an entire portfolio — were purchased by Sandia for a bargain price of \$150. Several Labs photographers also bought individual works for about \$35 each. The prints were displayed in Sandia buildings for a time.

"We wrote up a purchase order, and when I submitted it the purchasing agent said 'What the heck is Sandia becoming, an art collector?'" recalls Wayne Gravning (7153), who first suggested that the photos be purchased.

The collection — known as "What Majestic

World: Portfolio Number 4" — now has an estimated value of about \$90,000. "Now they're so valuable, they ought to be S-numbered," he says.

Wayne was the first of several Labs photographers to train under Adams in the 1960s, attending one- or two-week workshops in places like Yosemite National Park and Timber Cove, Calif. "One of Adams' philosophies was that two people could go out and plunk down their cameras in the same place and get — through lens selection, etc. — two completely different photographs," Wayne says.

Today Adams is known as the foremost nature photographer of the 20th century. His black and white photographs of California's Sierra Nevada range and the American Southwest are his most appreciated works. He died in 1984.

As Adams' popularity grew during the 1970s, Joe Laval (ret.) of the Public Relations Department had the prints framed, but no permanent place could be found at Sandia to display them. In 1977, they were loaned to the Albuquerque Museum, where they have been exhibited periodically for 17 years.



OSCAR GOODWIN of Printing/Photography/Electronic Imaging Dept. 7154 dusts off a collection of Ansel Adams prints owned by Sandia. The photographs, recently retrieved from Albuquerque Museum's archives, are now on display in the Bldg. 802 lobby. (Photo by Randy Montoya)

Because the Museum no longer had the photos on public display, Oscar Goodwin (7154) recently retrieved them from the Museum's archives. "We didn't want the photos to get lost or us to forget where they were," he says.

Oscar and others from the Photo Lab built a secure, permanent display made out of Plexiglas for 14 of the 15 prints. A photo Oscar took of Adams during a workshop is also exhibited next to the Adams photographs.

— John German

## Four individuals and one team get special acclaim

### Highest honors at Recognition Night

Five special awards were announced at Recognition Night 1994 on June 11 in addition to the 74 individual and 23 team Employee Recognition Awards reported in advance (June 10 *Lab News*). These "Top Five Award Winners," four individual Sandians and one team, were selected from among the recipients of the regular awards:

**Inventor of the Year.** Johnny Biffle (Manager, Computational Mechanics & Visualization Dept. 1425). "For the innovative development of meshing algorithms, and for leadership in establishing a consortium to facilitate their application to industrial problems, helping sustain national pre-eminence in computer-aided design."

**Manager of the Year.** David Nokes (Manager, Surety Program Office 5091). "For out-

standing initiative and leadership in development of the nation's dismantlement programs with the Former Soviet Union, and in the management of the Safety, Security, and Dismantlement and Lab-to-Lab programs."

**Author of the Year.** Jeffrey Tsao (Manager, Semiconductor Materials Dept. 1311). "For his book *Materials Fundamentals of Molecular Beam Epitaxy*, a major and well-received treatise containing both theoretical and practical details of this industrially important process."

**Engineer of the Year.** Frank Zanner (Liquid Metal Processing Dept. 1833). "For international leadership in the development of technologies for the production of high-quality super alloys, and for the creation of FASTCAST, a process for significantly reducing the time to

produce investment castings."

**Quality Team of the Year.** Laboratory Directed Research and Development Process Management Team (represented by Chuck Meyers, Lab Directed R&D Dept. 1011). "For improving the quality, efficiency, responsiveness, and impact of Laboratory Directed Research and Development (LDRD) processes and program." Other team members: Tim Knewitz (10601) Peter Mattern (1010), Laura Lopez (1011), Del Owyong (1312), David Womble (1422), Ernie Brickell (1423), Steve Rottler (1511), John Zepper (1511), Linda Benavides (2101), Ron Diegle (2012), James Gerardo (5601), Suzanne Weissman (6000), Marion Scott (6114), David Williams (6429), Louis Cropp (2643), Robert Luna (6603), Rick Stulen (8342), Duane Lindner (5605), Phil Montoya (9912), Maurice Katz (DOE/DP), Larry Adcock (DOE/AL), and Jim Lester (DOE/KAO).

### Positive response to new event

The June 11 event was the first Recognition Night for Sandians and the first time Employee Recognition Awards have been given. Sandians involved with it say it went well and the response has been quite positive.

"I was very pleased," says Sandia President Al Narath. "This is an excellent way to honor extraordinary performance by Sandians. I think the award recipients do consider it a special honor, they seemed to enjoy the evening, and I'm very glad we could recognize their outstanding contributions in this way."



TOP FIVE — Martin Marietta President Tom Young (third from right) joins Sandians who received the top five awards at Recognition Night. From left, David Nokes, Chuck Meyers (representing the Quality Team of the Year), Frank Zanner, Young, Jeffrey Tsao, and Johnny Biffle.

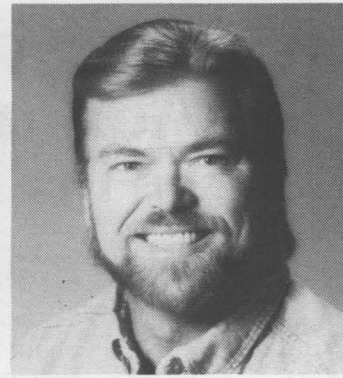


# Mileposts

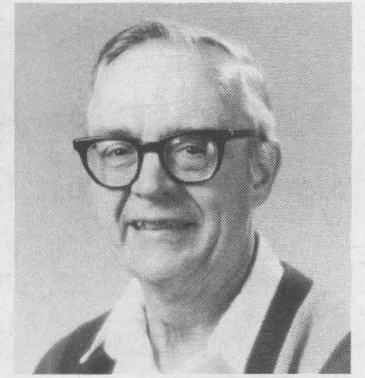
June 1994



Patricia Martin  
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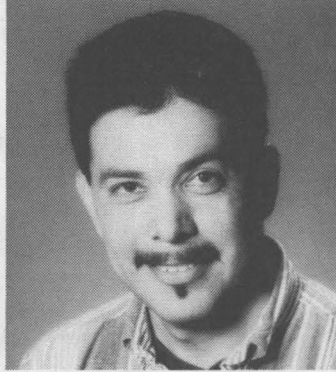
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Richard Guilford  
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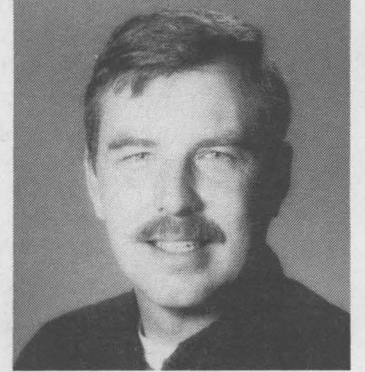
Ken Ludwick  
7814 35



Ken Nunez  
5362 15



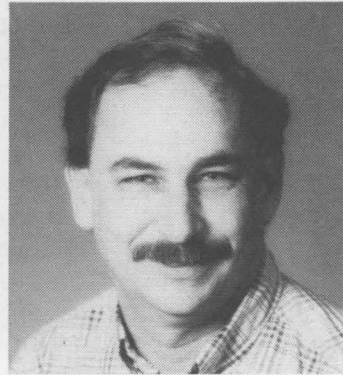
Arthur Sharpe  
9342 30



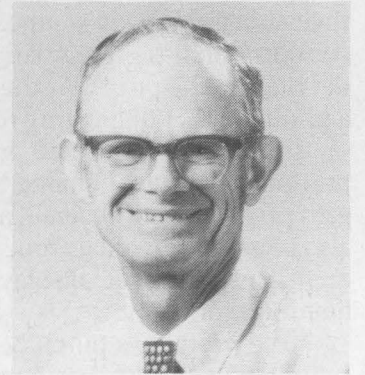
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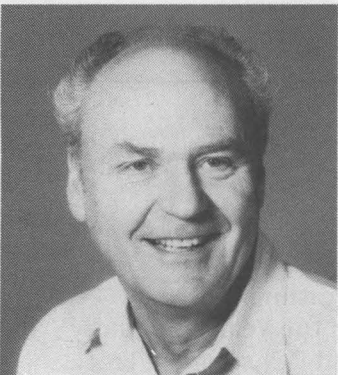
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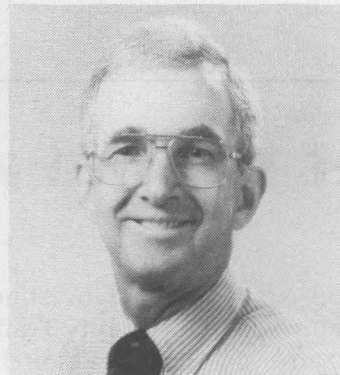
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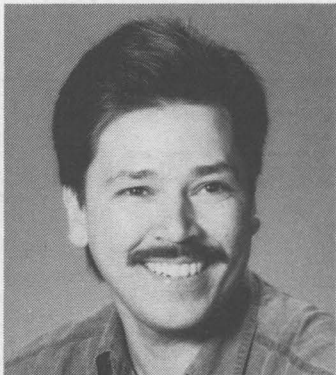
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Ray Culy  
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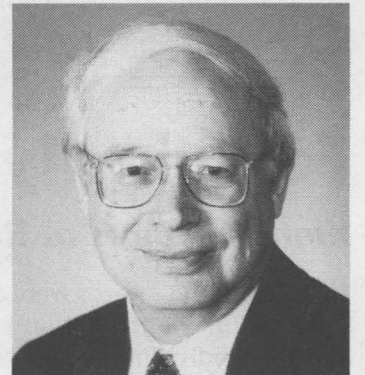
Phil Stanton  
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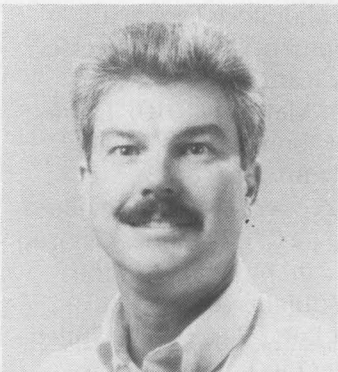
John Smith  
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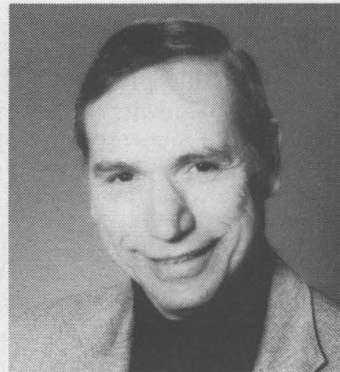
Gerald Quinlan  
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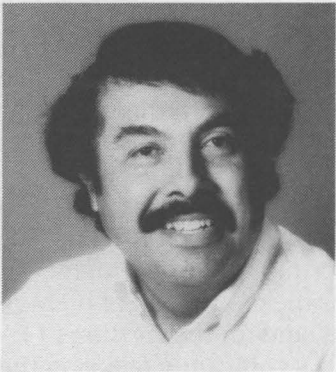
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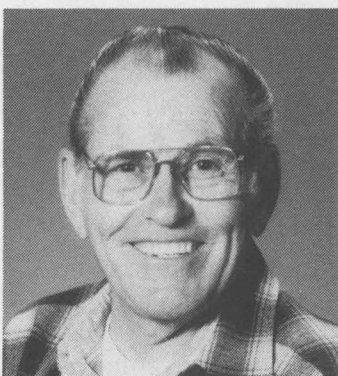
Steve Richards  
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Lee Bertram  
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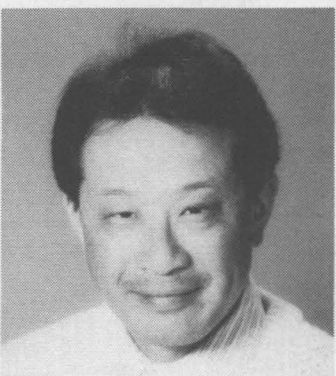
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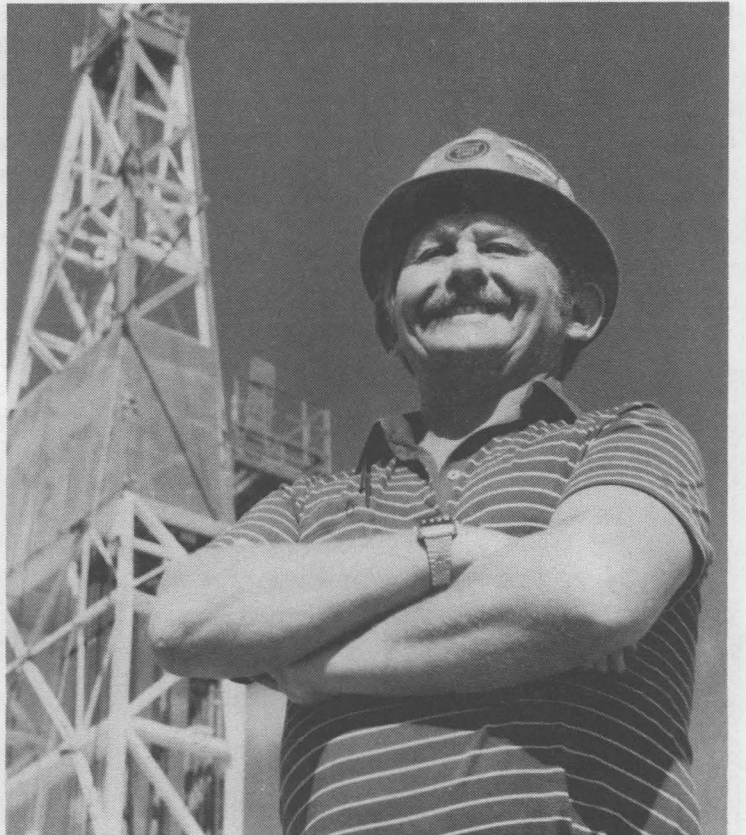
Bob Lebow  
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Bob Kee  
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Greg Soo  
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Ron Jacobson  
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**Sandia Classified Ads Sandia Classified Ads Sandia Classified Ads Sandia Classified Ads**

**MISCELLANEOUS**

FORMAL DRESSES, long black velvet, w/beaded top and spaghetti straps, size 7-8, \$50; long forest green velvet, size 7-8, \$40. Caprihan, 822-9685.

DINING TABLE, w/two leaves and six chairs, cherry wood, good condition, \$400 OBO; coffee table, 24" x 48", \$100 OBO. Smith, 899-2281.

REFRIGERATOR, student-size, used one semester, \$90. Mauldin, 293-3763.

STEREO, Pioneer SX-780, \$100; answering machine, AT&T 1330, \$25; Hayes 2400 external modem, \$20; RS DMP-120 printer, \$25. Greene, 899-1405.

CORRALES GOSSINGS, hatched June 8, \$2/ea. Stude, 897-4352.

RANGE EXHAUST HOOD, resembles wrought iron, complete w/motor, beautiful, never used, was \$525 new, asking \$100. Cocain, 281-2282.

PICKUP SHELL, used on '77 Ford, good condition, \$50. Jones, 293-0497.

LIFECALL, Life Saving Personal Security System, "I've fallen and I can't get up," new \$2,495, sell for \$1,000. Early, 1-552-7466.

MINK COAT, full-length, size 8, excellent condition, dark ranch, \$1,250. Simon, 299-8468.

MAC LCIII, 12MB RAM, 240 MB HD, HP 500C color printer, miscellaneous software, \$2,000. Guffrey, 828-2713.

ROTARY MOWER, 22-in., Briggs & Stratton, 3-hp, without catcher, \$35. Gendreau, 268-3436.

LITTLE TYKES SPORT COUPE, good condition, \$30. Casper, 266-2625.

PRINTER, Panasonic KX-P1124, dot matrix, letter quality mode, excellent condition, \$100. Carlson, 897-1850.

WEIGHT BENCH, w/bar, dumbbells, butterfly, pull-down, leg curl, weights, \$75. Padilla, 822-9622.

SEARS WATER SOFTENER, 5 months old, still under warranty, \$450 new, asking \$300. Folkins, 345-2801.

WOOD STEPS, w/metal frames, one 36"W x 26"H, one 30"W x 26"H, \$15/ea. Ottinger, 275-2348 after 5 p.m.

MAHOGANI EXECUTIVE DESK, 36" x 72", 4-drawer, 1 file drawer, \$125; tires, Niroyal 245LT75R16, Load E, \$30/ea. Sikora, 296-1762.

WATERBED MATTRESS, king-size, Maxi-waveless, excellent condition, switched mattress types, must sell, \$85 OBO. Kawola, 298-5813.

GUINEA PIG CAGES, two, 13" x 26", w/accessories, \$15/ea.; new croquet set, \$15; gas range, avocado, O'-Keefe/Merritt, \$75. Baker, 888-9650.

ORGAN, Lowrey Saturn Deluxe, w/play-along LZ98K, sounds great, \$500. Pantuso, 892-3641.

STEREO PRE-AMPLIFIER, Linn LK1, remote, Linn cables, \$375; Sony portable Diskman, \$100; stereo amp, Yamaha M-45, 125-watt, \$150. Norton, 299-3763.

MICROWAVE OVEN, Panasonic, large, works well, \$25. Armstrong, 271-8302.

COLOR TV, Sears, 21-in., dark wood cabinet, works well, needs "rabbit ears" or outside antenna, \$75. Gomez, 291-0691.

COMPUTER, HP-85, w/manuals, '70 vintage, \$50. Grower, 856-1546 after 7 p.m.

GIFT CERTIFICATE, towards purchase of cellular phone, Mr. Cellular and US West, \$200 value, price negotiable. Cook, 888-2928.

YOUTH HELMETS, two, good condition, \$15/ea.; Nintendo video game, w/nine games and carrying case, excellent condition, \$70. Anderson, 897-2772.

REFRIGERATOR, Montgomery Ward, 18.6 cu. ft., harvest gold, excellent condition, \$200. Smith, 293-0216.

HEIN GERICKE JACKET, medium, \$50; leather pants, 32x31, \$50. McDonald, 899-8578.

BROYHILL DINING ROOM SUITE, drop-leaf table, six chairs, hutch; Smith Corona electric typewriter; transfer case, for Scout II. Brooks, 299-1884.

SAW, radial arm, 10-in., w/stand and casters, Sears Model 113, \$375. Meyer, 296-9066.

CHEST FREEZER, Penncrest, 22 cu. ft., white, approximately 4 yrs. old, \$200. McMurtrey, 881-0390 after 8 p.m.

RE-CAP SNOW TIRES & WHEELS, L78-15 for Ford pickup; air and oil filters for Ford Escort, Fram # CA-3597 and PH-3600. Dresser, 298-5251.

WATERBED, four poster, comes w/futon, Calif. King w/six-drawer pedestal, cherry alder wood, quality, \$300 OBO. Spear, 822-8982.

AIR CARRIER, for medium-large dog, used once, excellent condition, \$50; twin box spring and mattress, \$50; Fram filters. Farmer, 857-0503.

SATELLITE TV EQUIPMENT, Drake ESR240 receiver, Janeil automatic positioner, 18-in. telescoping arm, General Instruments Video Cipher II decoder, \$350. Hayes, 281-9282.

CD CHANGER, Alpine, w/6-CD cartridge, remote, \$300; Viper car alarm, \$100. Make offer. Gonzales, 344-6742 after 6 p.m.

'90 TRAVEL TRAILER, 26-ft., Shasta, AC, equalizer hitch, sleeps 6, many extras, never used, must see to appreciate, \$10,000. White, 892-2316.

CONTEMPORARY TABLES, oak & glass, square cocktail, end and sofa back, all bottom shelves, see by appointment, \$750 OBO. Brandt, 821-2830.

CAMPING WATER FILTER, Katadyn pocket filter, \$150. Lorence, 275-3586.

VIEW CAMERA, 4x5 Calumet, rotatable back, film holders, 90mm lens, \$350. Rieger, 281-0757.

QUEEN-SIZE COMFORTER, w/matching bed skirt, light blue flower, \$35. Mary, 271-0724.

FREE ROCKS, for ponding area, 6-8-in. diameter, approximately a pick-up load. Dukart, 296-0155.

WATERBED, queen-size, dark pine, deep drawer base and bookcase headboard, includes waveless mattress and heater, \$350. Greenstete, 268-8394.

BOXES, wardrobe and other various sizes; packing paper; free. Wenzel, 856-1547.

PROFESSIONAL SLIDES: San Francisco, Chicago, Disneyland, Hawaii, Kansas City, Reno, and Las Vegas, in carousel trays, inventoried. Wagner, 823-9323.

STEREO, car/truck Rockstar, 2-channel, 200-watt amplifier, dual-still water speakers, w/kicker subwoofer, \$250 OBO. Sargent, 865-3227.

CINDER BLOCKS, 4-in., used, 15¢/ea. Mozley, 265-2625 day or 299-4204 evenings.

BUNK BED SET, w/mattresses, white metal frame, guard rails, for all four sides, splits into twin beds, \$250. Fugelso, 275-3870.

MG/AUSTIN-HEALY ENGINE, 1075cc, w/hard-to-find smooth case transmission, other miscellaneous '63 Austin parts, all for \$500 OBO. Eikelberg, 296-0899.

SKI BOOTS, Lange/XLR, size 11-1/2, \$50; rear fender and deck lid, for '72 VW Bug, free; Kenmore washer, needs work, free. Szklarz, 292-3995.

LAWN MOWER, American, 16-in. push reel, \$50; canvas/steel grass catcher, \$10. McCormack, 296-3936.

SOFTWARE, Microsoft Office for PC, version 4.2, w/Windows 3.1, Word 6.0, Excel 5.0, Powerpoint 4.0, mail, \$450 new, sell for \$300. Brooks, 275-0056.

MOVING BOXES, 50, all sizes, shapes, \$1/ea. or \$45 for all. King, 899-1770.

SLIDE PROJECTOR, Sawyer, w/screen and holders, \$20; portable horse corral, \$100. Baker, 856-6228.

LAMPS, toaster oven, mower, ham radio gear, desk, cedar chest, recliner, antique chair & couch, wrought-iron patio chairs, kitchen items. Fisher, 881-8072.

KITTENS and their mom, need good homes, born April 26, friendly, litter-box trained, free. Jansma, 294-3524.

COMPAQ 386/25 LAPTOP, 4MB RAM, 60MB HD, DOS 5.0, Windows 3.1, PFS:WindowWorks, \$1,200 OBO. Brown, 298-3216.

BABY ITEMS: changing table, stroller, playpen, two potty chairs, baby scale, crib toy, booster seat, boy's clothes. Caton, 281-9420.

EXERCISE MACHINE, American Gladiator, just uncrated, new. Hindi, 271-2018.

HOSPITAL BED, twin, includes mattress, hand-held control, head and foot adjustments, \$250 OBO. Henderson, 237-9845.

KICKERBOX, two 15-in. woofers, 300 watts max, 4-ohm, 100-watt Pyramid crossovers included, \$150. Aguilar, 873-1952 or 1-264-5230.

OAK CRIB, high chair, strollers, back carrier, booster seat, potty chair, size 4-T girl's clothes, all excellent condition. Surrency, 823-2843.

AR-15/M-16 MAGAZINES (2), new, 30-round, \$20/ea. or \$35/both. Woodall, 821-1736.

386DX40, 120MB HD, 3.5 and 5.25 disk drives, 28DP NI SVGA monitor, mini tower, \$900. Gonzales, 836-4539.

SPINDLE HEAD/FOOTBOARD, for twin bed, \$85; full mattress & box spring, \$30; 2 top-load letter-filing cabinets, \$25/ea. Hobbs, 291-8267.

TRUMPET, B-flat, Bach Stradivarius, large bore, silver, excellent condition, new list \$1,550, sell for \$650. Guthrie, 299-7182.

**Deadline: Friday noon before week of publication unless changed by holiday. Mail to Dept. 12660, MS 0413, or fax to 844-0645.**

**Ad Rules**

1. Limit 20 words, including last name and home phone (the Lab News will edit longer ads).
2. Include organization and full name with each ad submission.
3. Submit each ad in writing. No phone-ins.
4. Use 8 1/2- by 11-inch paper.
5. Use separate sheet for each ad category.
6. Type or print ads legibly; use only accepted abbreviations.
7. One ad per category per issue.
8. No more than two insertions of same "for sale" or "wanted" item.
9. No "for rent" ads except for employees on temporary assignment.
10. No commercial ads.
11. For active and retired Sandians and DOE employees.
12. Housing listed for sale is available for occupancy without regard to race, creed, color, or national origin.
13. "Work wanted" ads limited to student-aged children of employees.

SPORTS EQUIPMENT, tennis, camping, snorkeling; wood stove; utility trailer; truck shell; dining table; refrigerator; electric water heater. Make offer. Guss, 298-3992.

CRIB & MATTRESS, \$60; 9-drawer & mirror, French, off-white & gold, \$110. Romero, 857-0466.

RV TOW BAR, Eaz-Aligner, collapsible, electrical, safety chains, mounting adapter, \$115; safety reflector triangles, set of 3, \$8. Bear, 881-7128.

ROTOTILLER, 5-hp, 2-spd., Montgomery Ward, \$120 or trade for concrete mixer. Bentz, 299-3448.

CLASSIC OLYMPUS OM-1, w/mirror lockup for sharper pictures, three lenses, flash, 3X extender, bag, \$350. Goodwin, 294-6702.

HOMESTEAD HOUSE, matching Drexel sleeper, \$125, love seat, \$75, earth colors; oak coffee, sofa, 2 end tables, \$150. Shirley, 821-4225.

KENMORE MICROWAVE, \$75; blue telephone, \$5. Drotning, 821-9598.

DINING TABLE, w/glass top, 60-in. round, w/4 matching Southwestern-colored cushioned chairs (soft beige, peach, green), \$175. Seyfer, 292-0179.

POP-UP TENT TRAILER, sleeps 6, canvas in good condition, '72 Wheel Camper, clothes closet, high clearance, \$650. Plut, 298-3060.

WATERBED MATTRESS, queen-size, liner, heater, \$25; coffee table, \$10. Jones, 888-0282.

BACKPACK TENT, one-person Wilderness Experience, \$60; 18-in. reel-type power mower, \$30. Nelson, 881-0148.

GARAGE SALE: June 25, desks, rattan chairs, 10-in. conference table, oriental rug, baby equipment, 1606 Old Town Road NW. Walkington, 242-9706.

COMPUTER PARTS: memory adapter board for 386 computer, \$15; 386 motherboard by Micronics from Gateway, \$30. Forster, 293-7231.

DOUBLE BED, single box spring, gray recliner, VGA color monitor, rabbits, rabbit hutch, doghouse, hamster cage w/apartment. Parr, 837-1719.

GARAGE SALE, June 24, 50's table, push mower (reel), misc. golf clubs, bags & arrows, child's desks, answering machine, more. Baney, 294-8970.

ORNAMENTAL WINDMILLS, two 8-ft., \$25; staircase 5-plant holder, \$15; 2-person raft/paddles, \$35. Hemsing, 823-2086.

SOFA, tan w/minor stripes, \$275; automobile manuals, '65 Chev. Chassis; '67 Pontiac; '82-'84 GM J-Car; '84 Isuzu P'up; wine bottles. Sheldahl, 299-4077.

WOOD CHANDELIER, Spanish style, \$40; exercise bike, \$45; roomy Nougahyde chair, torn by cat, \$20; two brown velour chairs, \$20. Doran, 255-9321.

LAVA ROCK, dark red, medium, free, you haul. Theriot, 828-0471.

KITCHEN DINETTE SET, table extends to 72 inches, w/2 leaves, 5 swivel padded chairs on casters, \$100. Ruby, 821-0982.

CRIB MATTRESS, \$20; playpen, \$25; high chair, \$10; pine dresser, \$25; natural birch dresser, \$25. Bixler, 856-3555.

WHEELCHAIR, Quickie Breezy, lightweight, almost new, excellent price; Silver-Reed electronic typewriter, excellent condition, \$95. Montano, 892-0987.

DOGHOUSE, 3' x 4' x 3' high, \$10; outdoor TV antenna, \$10; Tow-Rite car towing dolly, complete, swivel platform, fenders, lights, lube hubs, \$700. Horton, 883-7504.

RECLINING LOVESEAT, \$150; couch, chair, & ottoman, \$100; king-size waterbed & desk, \$100; woman's ski boots, \$50; 2 pr. snow skis, \$50/ea. Silver, 856-9924.

BABY ITEMS: Fisher Price high chair, \$25; car seats — infant, \$15, and Century 5000 STE, \$40; mint-green stroller, \$75. Wisley, 298-3195.

GARAGE SALE: multi-family, Saturday, June 25, 8 a.m.-4 p.m., swing set, crib, toys, books, clothes, San Antonio/Louisiana. Turpin, 281-5933.

RECLINER, \$45; refrigerator, \$100; SKS rifle, custom stock, \$190; sales counter, \$100. Jackson, 275-7488.

PERCEPTION DANCER KAYAK, sprayskirt, paddle, helmet, and floatations, used one season, entire setup \$650. Everything in excellent condition. Phillips, 262-0987.

BEDROOM SET, king-size, 5-piece, solid, \$800; loveseat, \$50; lamps, \$20/ea. OBO. Connor, 293-7608, day calls okay.

TWO LARGE CABINETS, w/enclosed storage and open shelving, \$25/ea.; glass and rattan dining table, 42-in., \$150. Pitts, 293-5481.

**TRANSPORTATION**

BOAT, '88 Bayliner, 19-1/2-ft., I/O, open bow, low hours, year-round enclosed storage, superb condition, \$7,400. Wilder, 856-1676.

REPO: '87 Ford Bronco II, 4WD, 89,097 miles. Bids through June 28. Right reserved to refuse all bids; subject to prior sale. Sold as is. SLFCU 293-0500 ext. 344.

BOAT, '93 Katana 750, 2,300 miles, new condition, \$4,200. McDonald, 899-8578.

'82 HONDA V45 Magna, 750cc, sport fairing, leather bags, new seat and battery, runs great, \$1,300. Pantuso, 892-3641.

BOAT, '89 Bayliner, 1950 Capri Bowrider, I/O-HO, 200-hp., low hours, many extras, excellent condition, \$8,500. Dwyer, 271-1328.

'88 YAMAHA DTSOU MOTORCYCLE, 500cc, 2-stroke engine, autolube oil injection, liquid-cooled, street ready, full instrumentation, like new, \$750. Fitak, 275-5893.

GIRL'S BIKE, 20-in., Columbia, blue, w/banana seat, excellent condition, \$20. Simon, 299-8468.

BOAT, 18-ft., I/O, 110-hp, rebuilt engine, cover & canopy, runs great, \$1,800 OBO. Wernicke, 237-9332.

'92 GMC CONVERSION VAN, Vandura 2500, under warranty, 32K miles, trailer hitch, much more, below NADA, \$18,500. White, 892-2316.

'89 HONDA MOTORCYCLE, XL600 Transalp, dual sport, low mileage, excellent condition, \$2,200. Rieger, 281-0757.

'66 DODGE 440 CORONET, 115K miles, needs minor body work and seat covers, no AC or radio, \$750. Greene, 292-2395.

BIKE, Schwinn, 10-spd., \$40. Baker, 856-6228.

'92 GEO CONVERTIBLE, red, AC, cruise, AM/FM cassette, fun, economical (45-50 mpg), 52K mostly highway miles, super condition, \$6,950 OBO. Kercheval, 1-864-6549.

'88 TOYOTA SUPRA TURBO, Targa top, 5-spd., red/gray, 80K miles, perfect condition, very strong, \$8,900. Baca, 271-2962.

'61 CHRYSLER, 318 cc, good for restoring, \$300; '69 VW Bug body, \$300; two VW engines, single-port, complete, \$290. Sanchez, 832-6260.

'87 FORD TAURUS WAGON, 8-passenger, electric everything, original owner, well maintained, \$4,000. King, 899-1770.

'87 SUZUKI SAMURAI, rebuilt engine, transmission, new clutch, heat/air, soft/hard tops, \$4,000. Jones, 873-8478, leave message.

'85 PONTIAC 6000, station wagon, good condition, \$1,900. Garcia, 899-2702 or 836-2305.

WOMAN'S BIKE, Schwinn, 5-spd., \$40. Drotning, 821-9598.

'89 TOYOTA CELICA GT, excellent condition, \$7,950. Beer, 867-3150.

'92 HONDA PRELUDE SI, silver, AC, cruise, sunroof, AM/FM cassette, CD, anti-theft, 19K miles, \$15,900. Snyder, 281-3822.

'77 CORVETTE, white/black sheepskins, custom radio, original numbers, full power, new tires and brakes, \$8,200 OBO. Eaglin, 821-5489.

PEUGEOT ROAD BIKES, 23-in. and 24-in., new tires, great condition, owner's manual included, \$85/ea. Zaffery, 296-0724.

'89 ACCURA INTEGRA, excellent condition, 78K miles, \$7,800 OBO. Buksa, 291-8839.

'90 HONDA VFR750F, new tires & battery, 7K miles, adult-ridden, well-maintained, excellent condition, \$5,500. Curtis, 281-8364 evenings.

'76 OLDS. CUTLASS, 2-dr., good body, runs well, extra wheels & tires, \$1,500 OBO. Schreiner, 266-6020.

GIRL'S BIKE, Panasonic, 20-in., excellent condition, \$145 new, asking \$70. Bixler, 856-3555.

'86 CHEV. S-10 BLAZER, white, good condition, \$5,900. Wisley, 298-3195.

'89 GMC TRUCK, S15 king cab, fully equipped, \$6,000. Raines, 291-9002.

10-SPD. BIKE, \$35; '80 Olds., \$500. Jackson, 275-7488.

MOUNTAIN BIKE, 19-in., '92 Fisher Advance, Shimano Exage 500/LX components, Onza bar ends, good condition, \$175 OBO. Smith, 271-1470.

**REAL ESTATE**

3-BDR. HOME, 2 baths, 2-story, one mile east of Tijeras, on 2 acres, double carport, decks, security system, like new. Dresser, 298-5251.

4-BDR. HOME, 2 baths, 1,650 sq. ft., Academy Acres, Spanish tile, nature landscaping w/sprinklers, \$113,000. Ashby, 821-3627.

3-BDR. HOME, 2 baths, 1,200 sq. ft., near Gibson and San Pedro, 928 Cardenas SE, brick, double garage, pitched roof, sprinklers, \$99,000. Lambert, 292-8417.

1.5 ACRES on river below Elephant Butte, pecan and walnut trees, 14' x 65' mobile home needs work, utilities, irrigation well, \$51,900. Reilly, 298-6517.

4-BDR. HOME, custom passive solar, east of Tramway/Encantado, Northern New Mexico styling, more than 2,550 sq. ft., \$168,500. George, 299-2281.

2-BDR. CONDOMINIUM, Winrock Villas, 2nd story, 1 bath, w/fireplace, 4 pools, sauna, jacuzzi, security guard provided, \$49,500 refinance. Gibson, 898-3529.

**WANTED**

TRUMPET, silver, mint condition, reasonably priced. Cancilla, 881-6948.

PORTABLE MASSAGE TABLE. Hymer, 293-6029.

DESKTOP COPIER, in good condition, reasonably priced, for use at home. Baker, 888-9650.

TRIALS MOTORCYCLE; general purpose dirt bike and kid's motorcycle, PW50 or trials or whatever. Pryor, 294-6980.

BASS PLAYER, for Classic Rock band, 1-2 gigs a month. Holmes, 897-0916.

CHILD'S YOUTH CAR SEAT, ages 4-8, not infant seat, often called kangaroo seat. Underhill, 294-5774.

RIDING LAWN MOWER. Jaramillo, 864-9202.

**WORK WANTED**

LAWN MOWING jobs in NE Heights on regular basis, your mower or mine; ask for Ryan when calling. Perrine, 293-1429.

**LOST & FOUND**

LOST: Watch, w/black band at Manzano Field, in early May. Sandoval, 873-1734.

FOUND: Tie tack, Bldg. 825 (TTC) east parking lot. Turner, 845-0480.



## Fourth of July pool party features food, music, and clowns

### Coronado Club activities

TONIGHT it's time to put on the boots and dance to the sounds of the Isleta Poor Boys. Stoke up before hand with a T-bone steak or golden fried shrimp dinner, each \$11.95, or the all-you-can-eat buffet with baked ham, Baron of beef, roast turkey breast, poached fish, and the Chef's surprise for \$6.95.

REMEMBER, the patio area is open for lunch each weekday, 11 a.m.-1:15 p.m. There's sitting on the shady patio, in the grassed area, or of course in the air-conditioned dining room.

THE LAST BINGO NIGHT of June is Thursday, June 30. Card sales and buffet at 5:30 p.m., early birds bingo at 6:45.

THE HOLIDAY WEEKEND features Sunday brunch, July 3, 10 a.m.-2 p.m. followed by a tea dance with Best Shot, 1-4 p.m. Then on Monday, July 4, celebrate Independence Day and stay wet and cool at the all-day pool and patio party, 11 a.m.-6 p.m. You won't go hungry. There'll be barbecue ribs, steaks, tacos, corn on the cob, baked beans, and a lot more. Joe Sais and the Showcase Band will play from 2-6 p.m. The clowns Pixie, Sparky, and Mitzie will entertain the children. Admission is free to Club members, \$3 for guests.

THE FIRST of three Bingo Nights in July is Thursday, July 7. Card sales and the buffet start at 5:30, early birds bingo at 6:45.

## Sandia News Briefs

### Sandians Receive 1994 New Mexico Inventor of the Year Award

Sandians Ed Thomas (12323), Dave Haaland (1823) and Kathy Alam (1823) along with Dr. Ries Robinson of University of New Mexico School of Medicine and Rio Grande Medical Technologies Inc. were awarded the New Mexico Inventor of the Year Award this month for their patented noninvasive arterial blood gas monitor. The device uses near-infrared spectroscopy and multivariate analysis to measure critical parameters of human health in intensive care settings without puncturing the skin or producing waste products. Additional collaborative research is being done by Sandia, UNM School of Medicine, and Rio Grande Medical Technologies, Inc. under a grant from the Department of Defense Technology Reinvestment Project to commercialize the noninvasive blood gas devices.

### Jim Asay to receive 1994 Aeroballistics Award

The Aeroballistic Range Association (ARA) will present its 1994 Aeroballistics Award to Jim Asay, Manager of Defense Programs Technology Transfer Coordination Dept. 5602, at a banquet in Huntsville, Ala., in October. In a letter advising Jim of the award, ARA Chairman Gary Hough says, "Speaking for all the ARA members, we recognize that your own and your Sandia group scientific achievements are of the highest caliber and that you have invested considerable time, effort, and leadership to improve the ARA and make it a premier technical society."

Send potential Sandia News Briefs to Lab News, Dept. 12660, MS 0413, fax 4-0645.

## Sandia in the News

This is a periodic column listing a selection of recent print and broadcast news reports about Sandia. It is provided by Media Relations Dept. 12630 to give Sandians a sense of what is being said about Labs work in national and international media.

A major *New York Times* piece about the coming of the agile manufacturing age — it focuses on strides being made by Ford — quotes Sandia President Al Narath on the importance of the national labs turning their attention to competitiveness in manufacturing. "The fact is that a real war, a global economic war, continues, and our national security is at risk," Al says.

A *Christian Science Monitor* article covers work Sandia is doing to address environmental and air quality concerns in the El Paso, Texas/Juarez, Mexico, metropolitan area. The piece is headlined, "Air-Polluting Tale of Two Cities."

Tass, the official Russian news agency, reports that six contracts between Sandia and the Russian Federal Nuclear Center have been signed. Goals of the contracts — 12 others are in the works — are development of biomedical equipment and safety technologies in microelectronics, power engineering, and ecology.

*High Performance Computing and Communications Week* has front-page coverage of the recent world computing speed record achieved at Sandia with the Intel Paragon supercomputer. The story quotes Art Hale (1424).

The British magazine *Scientific Computing* reports that Sandia is using super-fast computers to learn more about what will happen when Comet Shoemaker-Levy 9 fragments the size of a mountain collide with Jupiter in July. An *Aerospace America* cover story about the comet also mentions

Sandia's work.

A major article in London's prestigious *The Economist* about use of virtual reality in manufacturing technologies mentions Arlan Andrews (2902) and Sandia's development "of a multi-user virtual environment for design, in which people can put together and test any contraption they can think of."

*Photonics Spectra* has a full-page story, with color photos, about the Labs' scannerless laser-radar (ladar) imaging technology that may lead to the commercialization of a faster, less expensive range-imaging system.

An *Electronic Engineering Times* article headlined "Gore unveils semiconductor initiative" reports on the Technology Evaluation Program's use of "a processing facility at Sandia to address the semiconductor commercialization gap." The story also mentions that Sandia will be the site of an integrated circuit equipment development center to complement SEMATECH's "Future Factory" project.

*Security* magazine quotes Brian Naylor (5838) in a story about advancements in magnetic stripe technology.

### Three more members of award-winning diversity teams

The following three people are additional members of diversity leadership teams that received an Employee Recognition Award June 11 (*Lab News*, June 10): Anthony Thornton (3020), Patricia Knighten (4221), and Jerry Langheim (12600).

The list of diversity teams members provided to the *Lab News* for the June 10 story was incomplete.

## Fun & Games

*Golf* — Results of the Sandia Golf Association (SGA) Southern Classic (Two-Man Chicago) Golf Tournament held in Socorro on April 23 are as follows: A Flight — a three-way tie between Lew Bartel (6114) and Howard Cilke (ret.), Mark Calvin (10403) and Carl Leishman (2412), and Paul Page (5500) and Phil Federico (5911). B Flight — Tony Lopez (ret.) and Edward Gallegos (ret.), first place; John Merson (2653) and Floyd Braaten (2653), and Julian Lovato (3020) and Dave Salas (ret.) tied for second place; C Flight — Bob Barton (10221) and Ron VanTheemsche (2883), first place; Mike Heck (2334) and Duane DeWerff (5901), second place; and Jake Romero (10328) and Ben Chavez (10329), third place.

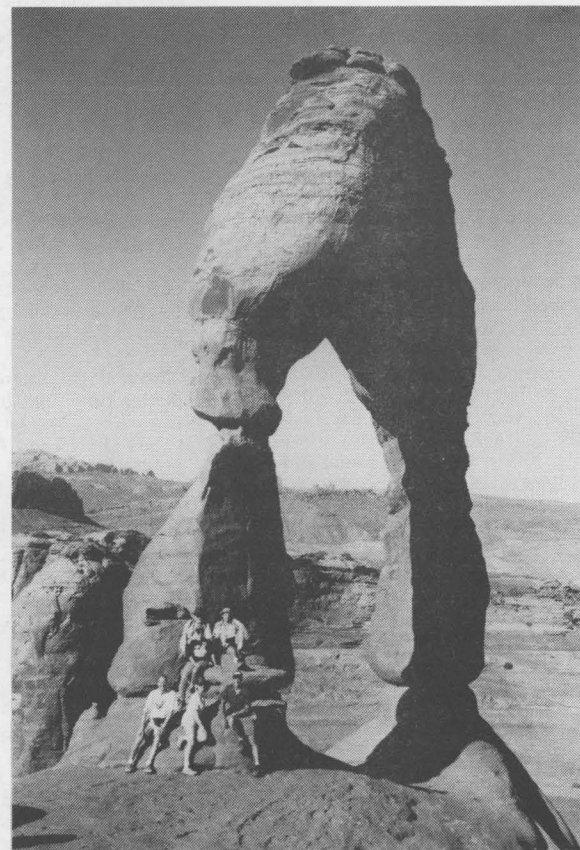
The SGA Board of Directors congratulates Roy Tucker (6215) for a hole-in-one Feb. 19 at the Tijeras Arroyo Golf Course. He used a 7-wood on the 175-yard 14th hole.

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*More Golf* — Sandia Golf Association's Chet Fornero Golf Tournament was played at Paradise Hills on May 7. Winners include: A Flight — Pres Herrington (9236), first place; Fernando Uribe (2411), second place; Mike Gray (9135), third place; and Dave Kozlowski (2172) and Roy Tucker (6215), tied for fourth place; B Flight — Charlie Salazar (2484), first place; Dennis Gutierrez (9216), second place; Tom Welch (9249), third place; and Mark Bearer (2334), fourth place; C Flight — Pro Padilla (7612), first place; Ben Chavez (10329) and Carl Schuster (ret.), tied for second place; and Ed Bishop, fourth place.

## Congratulations

To Cheryl and Allyn (2254) Anderson, a son, Gabriel Donn, June 5.



IT ISN'T ROC DONALD, the famous stone-arched eatery portrayed in the recent movie *The Flintstones*, but members of Sandia's Singles Club still had a rock'n good time on their recent trip to Moab, Utah, and Arches National Park. Sandia/DOE singles are invited to join the club for future events such as the upcoming Coronado Club dance/pool party, Carlsbad Caverns New Cave hike, and Fourth of July camping trip to Williams Lake in Pagosa Springs, Colorado. The Singles Club will meet at 5 p.m. on Monday, July 11, at the Coronado Club.